

## IN THE CLAIMS

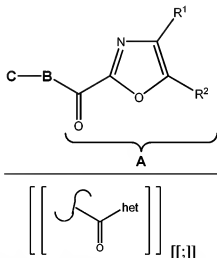
Please cancel claims 5-8 and amend claims 1, 3, 4, 9, 11, 13, 15, and 16 as follows:

1. (Currently Amended) An inhibitor of fatty acid amide hydrolase represented by the following formula:

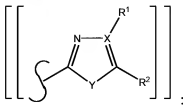
A-B-C

wherein A is an inhibition subunit in the form of an  $\alpha$ -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an  $\alpha$ -keto-heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the  $\alpha$ -keto-heterocyclic pharmacophore being wherein A-B-C is represented by the formula:



wherein "het" is represented by the following structure:



wherein

~~X is carbon;~~

~~Y is oxygen;~~

$R^1$  and  $R^2$  are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

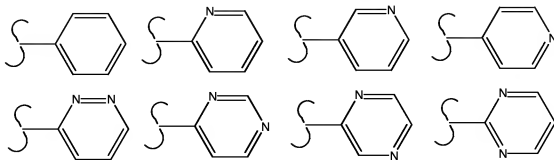
with the proviso that  $R^1$  and  $R^2$  cannot both be hydrogen;

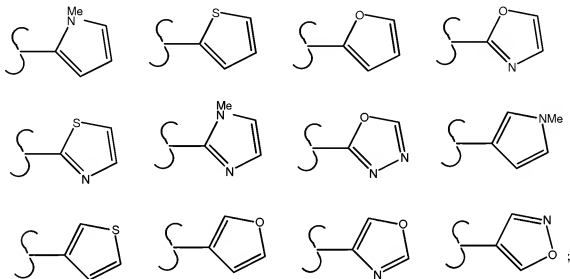
the linkage subunit B is a linear chain of 3 to 9 carbon atoms for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase, ~~the chain having a linear skeleton of 3 to 9 carbon atoms~~, the linear skeleton having a first end and a second end, the first end being covalently bonded to the  $\alpha$ -keto group of A,

wherein ~~[[if]]~~ the first end of ~~B said chain~~ is an  $\alpha$ -carbon with respect to the  $\alpha$ -keto group of the inhibition subunit A, and then the  $\alpha$ -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

the binding subunit C is a  $\pi$ -bond containing radical having a  $\pi$ -unsaturation and being selected from a group consisting of aryl, alkynyl, and ring structures having at least one unsaturation, with or without one or more heteroatoms, the binding subunit C being covalently bonded to the second end of the linkage subunit B, the  $\pi$ -unsaturation within the  $\pi$ -bond containing radical being separated from the  $\alpha$ -keto group of A by a sequence of no less than 3 and no more than 9 atoms bonded sequentially to one another, inclusive of the linear skeleton for enabling the  $\pi$ -unsaturation to bind to the binding region of the fatty acid amide hydrolase while the inhibition subunit A inhibits the fatty acid amide hydrolase.

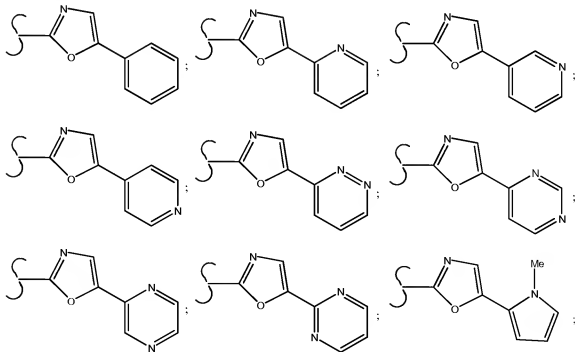
2. (Previously Presented) An inhibitor of fatty acid amide hydrolase according to claim 1 wherein  $R^1$  and  $R^2$  are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:

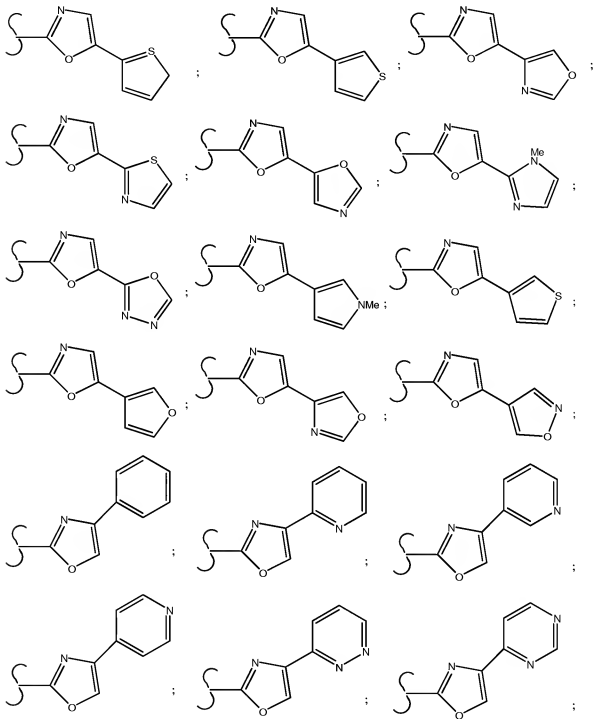


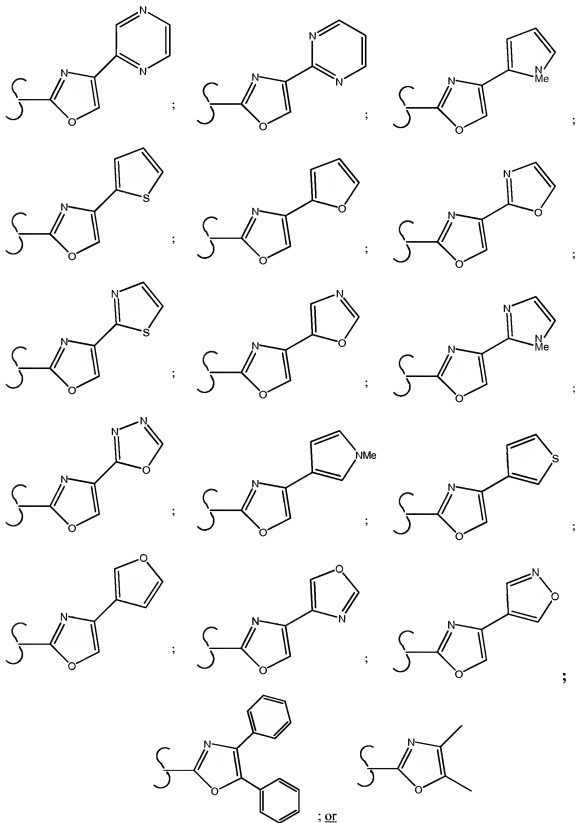


provided that  $R^1$  and  $R^2$  are not both hydrogen.

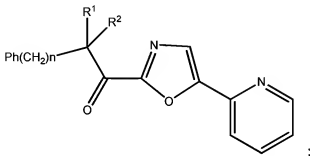
3. (Currently Amended) An inhibitor of fatty acid amide hydrolase according to claim 2 wherein ~~the~~  $\alpha$ -keto heterocyclic pharmacophore of the inhibition subunit A is selected from the following group:







4. (Currently Amended) An inhibitor of fatty acid amide hydrolase according to claim 3 wherein the inhibitor is represented by the following structure:



wherein  $R^1$  and  $R^2$  are independently selected from the group consisting of hydrogen, fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

"n" is 2, 3, 4, 5, 6, 7, or 8 ~~an integer between 2 and 8.~~

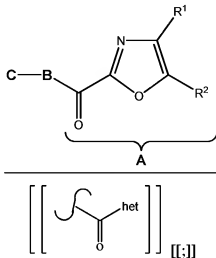
5. (Cancelled)  
6. (Cancelled)  
7. (Cancelled)  
8. (Cancelled)

9. (Currently Amended) An inhibitor of fatty acid amide hydrolase represented by the following formula:

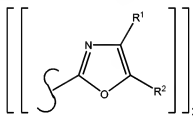


wherein A is an inhibition subunit in the form of an  $\alpha$ -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an  $\alpha$ -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the  $\alpha$ -keto heterocyclic pharmacophore being wherein A-B-C is represented by the formula:



wherein "het" is represented by the following structure:



wherein

$\text{R}^1$  is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

$\text{R}^2$  is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, and heteroaromatic ring;

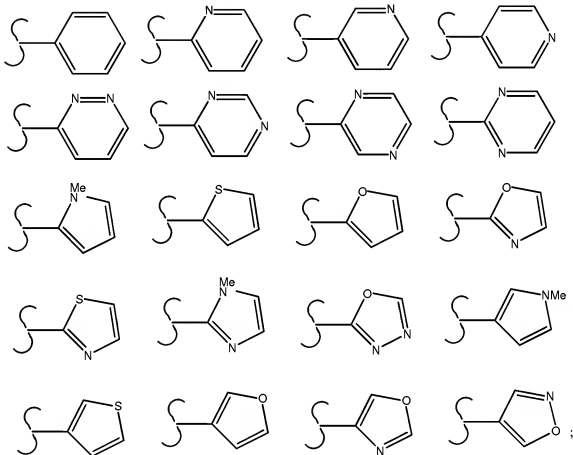
provided that  $\text{R}^1$  and  $\text{R}^2$  are not both hydrogen;

the linkage subunit B is a linear chain of 3 to 9 carbon atoms for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase, ~~the chain having a linear skeleton of 3 to 9 carbon atoms~~, the linear skeleton having a first end and a second end, the first end being covalently bonded to the  $\alpha$ -keto group of A,

wherein ~~[[if]]~~ the first end of ~~B said chain~~ is an  $\alpha$ -carbon with respect to the  $\alpha$ -keto group of the inhibition subunit A, and then the  $\alpha$ -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

the binding subunit C is C1-C10 alkyl.

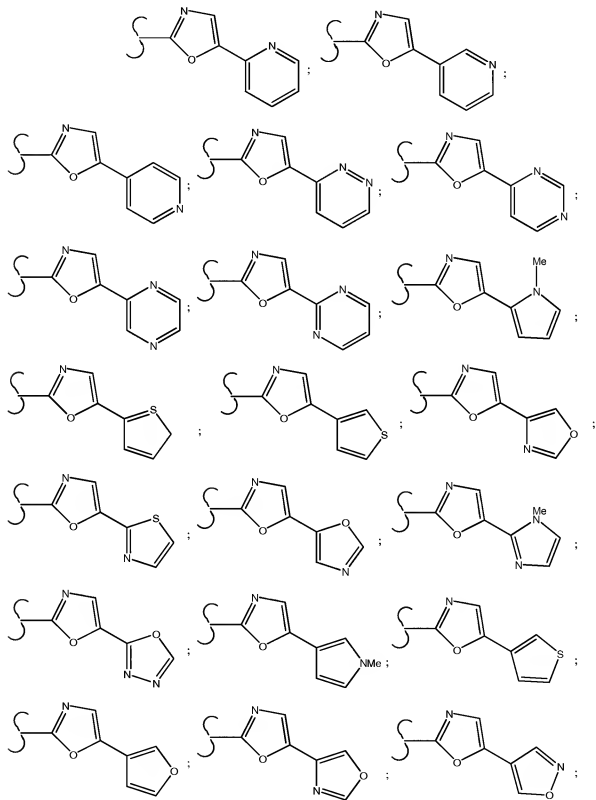
10. (Previously Presented) The inhibitor of fatty acid amide hydrolase according to claim 9 wherein  $R^1$  and  $R^2$  are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:

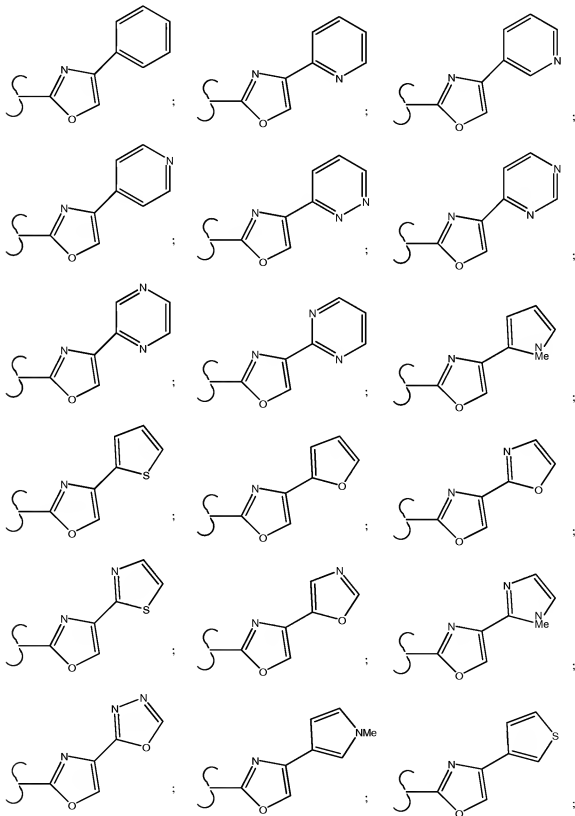


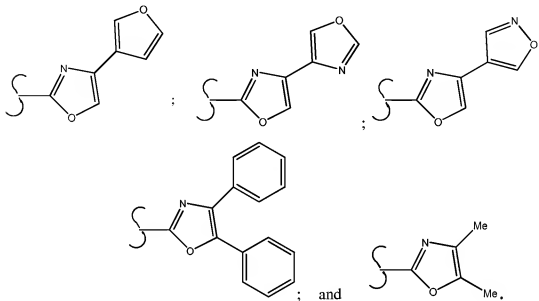
provided that  $R^2$  is not phenyl.

11. (Currently Amended) The inhibitor of fatty acid amide hydrolase according to claim 10 wherein "het" of the  $\alpha$ -keto heterocyclic pharmacophore of the inhibition subunit A is selected from:

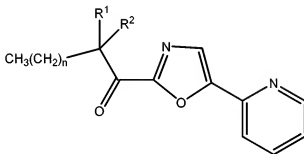








12. (Previously Presented) The inhibitor of fatty acid amide hydrolase according to claim 11 wherein the inhibitor is represented by the following structure:



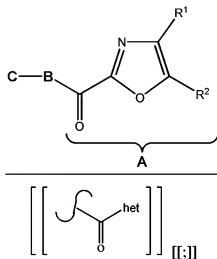
wherein  $R^1$  and  $R^2$  are independently hydrogen, fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, or alkyl; and "n" is 3, 4, 5, 6, 7, 8, or 9.

13. (Currently Amended) An inhibitor of fatty acid amide hydrolase represented by the formula:

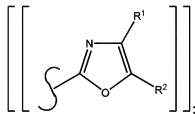
A-B-C

wherein A is an inhibition subunit in the form of an  $\alpha$ -keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, B is a linkage subunit, and C is a binding subunit and wherein:

the inhibition subunit A is an  $\alpha$  keto heterocyclic pharmacophore for inhibiting the fatty acid amide hydrolase, the  $\alpha$  keto heterocyclic pharmacophore being wherein A-B-C is represented by the formula:



wherein "het" is represented by the following structure:



wherein

$R^1$  is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, aromatic ring, and heteroaromatic ring;

$R^2$  is a radical selected from the group consisting of hydrogen, C1-C6 alkyl, and heteroaromatic ring;

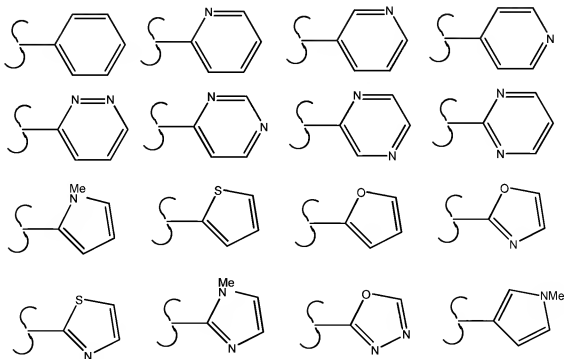
provided that  $R^1$  and  $R^2$  are not both hydrogen;

the linkage subunit B is a linear chain of 3 to 9 carbon atoms for linking the inhibition subunit A and the binding subunit C and for enabling the binding subunit C to bind to the binding region on the fatty acid amide hydrolase, ~~the chain having a linear skeleton of 3 to 9 carbon atoms~~, the linear skeleton having a first end and a second end, the first end being covalently bonded to the  $\alpha$ -keto group of A,

wherein [[if]] the first end of B said-chain is an  $\alpha$ -carbon with respect to the  $\alpha$ -keto group of the inhibition subunit A, and then the  $\alpha$ -carbon is optionally mono- or bis-functionalized with substituents selected from the group consisting of fluoro, chloro, hydroxyl, alkoxy, trifluoromethyl, and alkyl; and

the binding subunit C is a  $\pi$ -bond containing radical having a  $\pi$ -unsaturation and being an alkenyl having at least one unsaturation, with or without one or more heteroatoms, the binding subunit C being covalently bonded to the second end of the linkage subunit B, the  $\pi$ -unsaturation within the  $\pi$ -bond containing radical being separated from the  $\alpha$ -keto group of A by a sequence of no less than 3 and no more than 9 atoms bonded sequentially to one another, inclusive of the linear skeleton for enabling the  $\pi$ -unsaturation to bind to the binding region of the fatty acid amide hydrolase while the inhibition subunit A inhibits the fatty acid amide hydrolase.

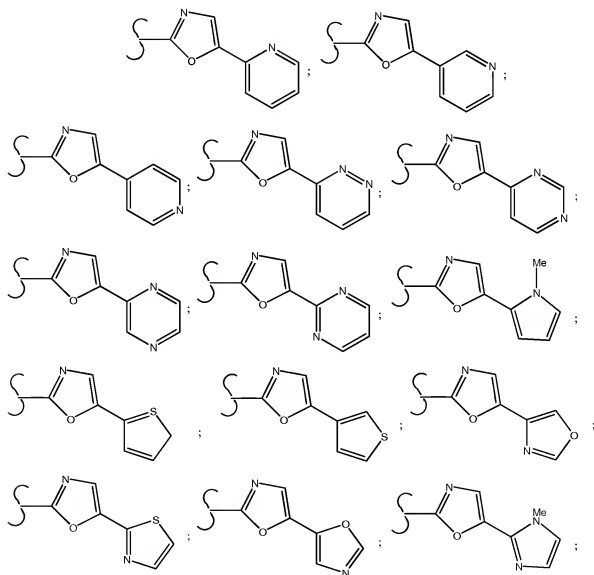
14. (Previously Presented) An inhibitor of fatty acid amide hydrolase according to claim 13 wherein  $R^1$  and  $R^2$  are radicals independently selected from the group consisting of hydrogen, C1-C6 alkyl, and radicals represented by the following structures:



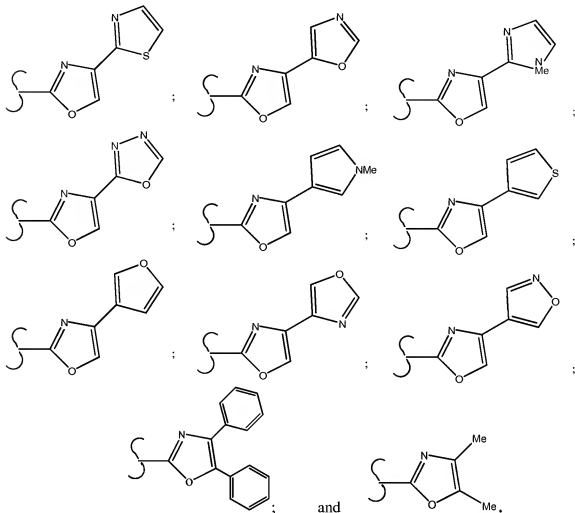


provided that  $R^2$  is not phenyl.

15. (Currently Amended) An inhibitor of fatty acid amide hydrolase according to claim 14 wherein  $-\text{het}-$  of the  $\alpha$ -keto heterocyclic pharmacophore of the inhibition subunit A is selected from the following group:







16. (Currently Amended) The inhibitor of fatty acid amide hydrolase according to claim 4 wherein one of R<sup>1</sup> and R<sup>2</sup> is ~~are both~~ hydrogen.

17. (Previously Presented) The inhibitor of fatty acid amide hydrolase according to claim 4 wherein "n" is 6, 7, or 8.

18. (Previously Presented) The inhibitor of fatty acid amide hydrolase according to claim 4 wherein the inhibitor is represented by the following structure:

